DOD HFE sub TAG Meeting Minutes Form

Purpose of sub TAG meeting minutes:

The purpose of the sub TAG meeting minutes is to inform the Department of Defense Human Factors Engineering Technical Advisory Group (DOD HFE TAG) membership of the activities of the sub TAG and the major areas of concern being discussed and addressed.

General Information:

Please complete all sections:

SubTAG Name	PERSONNEL #Selection & Classification
Date of the DOD HFE TAG **Date (month/day/year)**	05/21/2014
Number of Attendees at subTAG session	18
Organizations Represented (Agencies and/or organizations that employee members at the subTAG)	NAWC Training Systems Div, ARI, AFRS, AFPC/DSY, AF/A1P, AF/SG/AF Consult Service, U of Central Florida

SubTAG Chair's Name	SubTAG Chair's Organization	SubTAG Chair's Phone and Address
Dr Hector M. Acosta	HQ AF Recruiting Service	210 565 0308; 550 D Street West, Bldg 491, Ste 1, JBSA-Randolph, TX 78150
SubTAG Co-Chair's Name	SubTAG Co-Chair's Organization	SubTAG Chair's Phone and Address
Lt Brennan Cox, USN		cox.brennan@gmail.com
SubTAG Co-Chair's Name	SubTAG Co-Chair's Organization	SubTAG Chair's Phone and Address

AGENDA

Presentations and Panels (If none, state none).

Title of Presentation	Name of Presenter	Name of Agency or Organization Employing Presenter	Overview of Presentation (e.g., Paste Abstract Here or Generate a Brief Summary)
Evaluating a Situational Judgment Test for use in Multidimensional Complex Decision Making	**Lauren Reinerman-Jones, PhD**	Institute for Simulation and Training, University of Central Florida	Decision making is a skill often sought to quantify. That is achieved primarily through tasks or questionnaires. The challenge with those approaches is that the metrics are often unidimensional. The Situation Judgment Test (SJT) is multidimensional and comprises real-world work scenarios, each with response options from which respondents select the most effective response. Although SJTs often show criterion-validity, this is typically obtained from post-hoc analysis and may be biased as it entails using the tool before its evaluation. Furthermore, the content and dimensions underlying the SJT work scenarios are not always known and the SJT may not capture dimensions crucial to the job. The aim for the present study was to evaluate the dimensionality of SJT scenarios for later use to select effective decision makers. Fifteen SJT scenarios were administered to 94 participants, along with several measures of dimensions deemed relevant to real-world decision making. All but one of these dimensions predicted performance on at least one scenario. Certain dimensions seemed to predict more scenarios than others did. The results indicated that the SJT scenarios were able to incorporate some dimensions relevant to decision making. Future research should examine other measures for evaluating SJTs prior use for assessing decision making.
Unmanned Aerial System (UAS) Selection: Validating the Performance Based Measurement (PBM) Battery	CDR Hank Phillips, PhD	Naval Air Warfare Center, Training Systems Division (NAWC)	The high number of Unmanned Aerial System (UAS) mishaps associated with human error (i.e., over 50% [Thompson, Tvaryanas, & Constable, 2005; Schmidt & Parker, 1995; Williams, 2004]) has sparked interest in methods that can mitigate these safety issues. One strategy that has proven successful for manned aviation is the implementation of standardized validated selection tools. For example, research on the Navy's Aviation Selection Test Battery (ASTB) indicates that applicants with higher ASTB scores have improved safety and performance compared to those who score lower on the ASTB (Grubb & Phillips, 2011). In addition to promoting safety and mitigating mishaps, the ASTB has yielded an estimated savings of over $30 million a year by improving the quality of training accessions, reducing the flight hours needed to meet wing requirements, and lowering trainee attrition (Naval Aerospace Medical Institute, 2011). Providing a similar tool validated for UAS platforms could provide equivalent safety and savings by supporting the selection of those individuals who are most likely to succeed in training. While manned aviation has capitalized on these

			benefits by validating numerous selection tools (e.g., Performance Based Measurement [PBM]), the only validated test for unmanned aviation (Computer Based Performance Test [CBPT]) was developed for the legacy system Pioneer. Although the CBPT proved to be highly predictive in 2003), the test is now technologically antiquated as it runs on an outdated operating system. Moreover, the platform relevance and applicability to current UAS technologies further limits the utility of the CBPT, as a successful test must be validated and updated to reflect the new skill sets needed to operate emerging UAS technologies. While no test currently meets this requirement, the domains measured by the Performance Based Measurement (PBM) selection battery (developed for manned aviation) significantly overlap with those measured by the CBPT, making the PBM a prime candidate for establishing validity for the UAS population. As such, this presentation will describe content validation results from the first study, in a series of validation studies, investigating the utility of the PBM for the UAS community.
Development and Validation of Military Training Instructor (MTI) Screening Measures	Capt Anna Fedotova, USAF, PsyD, MPH, Clinical Psychologist,	Military Training Consult Service (MTCS), Air Education & Training Command (AETC)	Widely-publicized incidents of misconduct among MTIs prompted major re-evaluation of how non-commissioned officers are selected and screened for MTI duty. In this presentation, we describe the development and initial validation of new measures used in the revised psychological screening process. Findings are presented regarding: (a) MTI competency domains identified as most critical by subject matter experts, (b) initial results from the use of a 360 degree instrument (including co-worker ratings of candidate performance) and base mental health protocol to evaluate MTI candidates on common critical domains, and (c) criterion-related validation of MTI personality and attitudinal measures (including scales previously linked to risk of perpetrating sexual assault) against trainee reports of maltreatment and effective MTI leadership/mentoring. We conclude by encouraging discussion of current research/practices across agencies for (i) assessing performance through 360 degree ratings and (ii) developing personnel screening tools to assist in sexual assault prevention.
Predictive Validity of Aptitude and Personality Measures for Sensor Operator Training Outcomes	Chair for: Dr. Mark R. Rose, Research Psychologist	AF Personnel Center/ DSYX for AF/A1PT	With the rapid growth of remotely piloted aircraft (RPA) or unmanned aircraft systems (UAS), the question remains as to just what types of people should operate these systems. Studies on the attributes that predict success for RPA pilots are beginning to emerge (Carretta, 2012; Rose, Barron, Carretta, Arnold, & Howse, 2014), but few published studies have examined predictors of success for RPA sensor operators. Job analysis studies indicate that effective performance as a sensor

			operator requires similar attributes to those of an RPA pilot (Howse, 2011), but predictive validity evidence is lacking. The purpose of the current study is to evaluate the predictive validity of cognitive aptitude and personality measures for sensor operator introductory and advanced training. Results will assist in the selection of qualified RPA sensor operators, and help clarify the extent to which the sensor operator and RPA pilot roles require similar attributes.
Cyber/IT Test Development Project Overview	Chair for: Tom Carretta, PhD	AF Research Laboratory, RHC	In 2006, an Armed Services Vocational Aptitude Battery (ASVAB) Review Panel, with expertise in personnel selection, job classification, psychometrics, and cognitive psychology developed several recommendations for changes to the military enlistment test. One recommendation was to develop and evaluate a test of information and communications technology literacy to supplement current ASVAB content. Work has included a review of the literature and development of a working definition, test content taxonomy, and test items and forms. The Cyber Test (CT) has been validated against final school grades (FSGs) for several Air Force and Navy cyber training specialties. In addition, the CT has been administered to a large sample of military applicants to develop subgroup norms and examine construct validity. Results indicate the CT has predictive validity versus technical training FSGs and incremental validity comparable to the ASVAB technical knowledge tests when used with the ASVAB AFQT as a baseline. Further, the CT demonstrates smaller subgroup differences than the ASVAB technical knowledge tests and, like General Science, assesses both technical knowledge and verbal ability. The Air Force, Army, and Navy each are conducting studies to integrate the Cyber Test into the enlisted classification process.

Battlefield Airmen & Combat Support: Selection & Classification Process--Cognitive Physical Personality-Three Component Models	Hector M. Acosta, PhD	AF Recruiting Service	This presentation summarizes development of statistical models for classification of Air Force Battlefield Airmen (BA) and related Air Force Specialties (AFSs), including pararescue (PJ), combat control (CCT), explosive ordnance disposal (EOD), special operations weather (SOWT), survival, evasion, resistance, and escape (SERE), and tactical air control party (TACP). Results generally supported the criterion-related validity of the Tailored Adaptive Personality Assessment System (TAPAS), Armed Services Vocational Aptitude Battery (ASVAB), and Physical Ability and Stamina Test (PAST) for classification of applicants into these AFSs. The presentation concludes with process flow models of incorporating the statistical models in recruitment, selection, and classification.

Please provide the briefing to the TAG coordinators for posting on the TAG website, if the briefing is unclassified and cleared, via the provided CD

Issues and Concerns (If none exist, state none)

Title of Concern or Problem	Advocate or Organization That Raised Issue	Group Discussion Summary Related to Topic	Actions, if any to be taken
Need for "living" taxonomy of Constructs & Measurement systems across Services and Agencies	AF Recruiting Service and AFPC/DSYX for AF A1/P	No consistent and "TAG level" sustained repository specifying & defining basis, "current evolutionary maturity" snapshots: By stages in validation process: Ops need, construct validity, measurement/selection, experimental validation, predictive validity, operational validation (to include public law compliance; protected test material transition), implementation including both policy and data mgmt pieces.	Sub-TAG expressed interest in forming an ad hoc WG to define the structure and process to create/sustain a Personnel Selection & Classification Construct & Tool Taxonomy

Elections (If none held state none)

Position Being Filled	Current Person	Current Agency/Organization	Candidates Nominated (Name/Agency-Organization)	Final Sub TAG Selection (Based on Voting)
None				

*****Please also provide the new individuals contact information*****

Open Actions (If none exist state none)

Title of Concern or Problem	Advocate or Organization That Raised Issue	Group Discussion Summary Related to Topic	Actions, if any to be taken
Initial Personnel SubTAG Taxonony Development	HQ AF Recruiting Svc & AF Personnel Center	NAWC rep affirmed clear need and value	In approximately 1 month (~late June 2014), Chair will begin coordination (members and general timeline functional commitments) for initial planning WG meeting

General Notes (Optional):